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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,051

12/08/2005

Katsuyoshi Okabe

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11/03/2009

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EXAMINER

NGUYEN, SON T

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/560,051	Applicant(s) OKABE ET AL.	
	Examiner Son T. Nguyen	Art Unit 3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-7 is/are pending in the application.
- 4a) Of the above claim(s) 3-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1,7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cole et al. (2003/0101645A1) in view of JP11-56118 (on form PTO-1449, herein JP118,) and Knablein et al. (4291494).**

For claim 1, Cole et al. teach an apparatus for producing seedlings comprising: a closed-type structure (20) surrounded by light-interceptive thermally insulating walls (11-13); multi-staged seedling culture shelves (30) provided with a plurality of shelf boards (31) capable of mounting grafted seedlings (G) thereon, said seedling culture shelves being disposed within said closed-type structure; a plurality of artificial lighting devices (35) capable of projecting light onto the grafted seedlings and a plurality of fans (107,109) capable of generating air stream over each of said seedling culture shelves; an air conditioning unit (112) capable of controlling the temperature and the humidity within said closed-type structure; a carbon dioxide gas supply unit (36,38, see [0055]) capable of supplying carbon dioxide gas into said closed-type structure.

However, Cole et al. are silent about said a respective artificial lighting device of said plurality of artificial lighting devices and a respective fan of said plurality of fans being installed on each of said seedling culture shelves; and a light-transmitting shield

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detachably disposed to cover the grafted seedlings mounted on each of said plurality shelf boards of said seedling culture shelves, wherein said light-transmitting shield includes a plurality of vent holes; wherein the plurality of vent holes of said light-transmitting shield are provided with means of varying an open area of the vent hole thereof; wherein said light-transmitting shield includes side faces that are parallel to a direction of; a flow of the air stream, and wherein said plurality of vent holes are formed in said side faces of said light-transmitting shield to generate a static pressure from the flow of the air stream, such that the static pressure provides a gas exchange between an inner space of the closed-type structure and an inner space of said light-transmitting shield.

JP118 teaches an apparatus for producing seedlings comprising an artificial lighting device (29) and fans (32) being installed on a each seedling culture shelf (23,27). It would have been obvious to one having ordinary skill in the art at the time the invention was made to install an artificial lighting device and a fan on each shelf as taught by JP118 directly on the seedling culture shelves of Cole et al. in order to provide more direct and concentrate light and air ventilation to each of the plants on each shelf.

Knablein et al. teach an apparatus for producing seedlings comprising a light-transmitting shield (12) detachably disposed to cover the grafted seedlings mounted on shelf boards/containers, said light-transmitting shield being provided with a plurality of vent holes (39); wherein the plurality of vent holes of said light-transmitting shield are provided with means (50) of varying an open area of the vent hole thereof; and wherein said light-transmitting shield includes side faces (30-34) that are parallel to a direction of

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a flow of the air stream (depending on air flow patterns because the air flow into vent can be of various directions), and wherein said plurality of vent holes are formed in said side faces (top side faces 30) of said light-transmitting shield to generate a static pressure from the flow of the air stream, such that the static pressure provides a gas exchange between an inner space of the closed-type structure and an inner space of said light-transmitting shield (inherently taught in Knablein et al. because air flow will circulate within the interior of the shield). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a light-transmitting shield with vent holes on side faces and means of varying the rate of hole area as taught by Knablein et al. over the seedlings mounted on the shelf boards of Coles et al. in order to protect the seedlings therein and in order to control the air flow rate entering the interior thereof.

For claim 7, Coles et al. as modified by JP118 and Knablein et al. are silent about wherein the apparatus includes a plurality of said light-transmitting shields, each of said plurality of said light-transmitting shields being mounted on a respective shelf board of said plurality of shelf boards. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a plurality of said light-transmitting shields, each of said plurality of said light-transmitting shields being mounted on a respective shelf board of said plurality of shelf boards in the apparatus of Coles et al. as modified by JP118 and Knablein et al., since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

Response to Arguments

3. Applicant's arguments filed 8/3/09 have been fully considered but they are not persuasive.

Applicant argued that it is clear that Knablein teaches that a light transmitting shield has a vent hole located at a top portion thereof, but fails to disclose or suggest that the light- transmitting shield includes side faces that are parallel to a direction of a flow of the air stream and includes a plurality of vent holes formed in the side faces to generate a static pressure from the flow of the air stream, such that the static pressure provides a gas exchange between an inner space of the closed-type structure and an inner space of the light-transmitting shield, as recited in claim 1.

The amended claim calls for side faces, to which the top portion of Knablein can be considered a top side face because a top portion is a side (top side) of a shield. In addition, since the top portion is separated by member 40, each one of the square or rectangle sections can be considered a face; thus, the vent 39 is mounted on at least two sections, hence, the holes are formed in side sections or faces.

As for the air flow being parallel, that would depends on the air flow pattern because as air enters the interior of the shield, the air flow pattern can go down and then across and then upward. Thus, at least the across direction is parallel to the top side faces 30. In addition, the static pressure and gas exchange in the interior space would be inherent because such is the nature of air flow in relationship to the vent in a confined space.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Nguyen whose telephone number is 571-272-6889. The examiner can normally be reached on Mon-Thu from 10:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Son T. Nguyen/
Primary Examiner, Art Unit 3643